



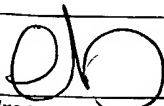
UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,491	12/12/2003	Michael J. Douglas	64180-201000	1886
7590 08/10/2004 Joy Ann G. Serauskas McDermott, Will & Emery 227 West Monroe Chicago, IL 60606-5096			EXAMINER FONTAINE, MONICA A	
			ART UNIT	PAPER NUMBER
			1732	

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/735,491	DOUGLAS ET AL.	
	Examiner	Art Unit	
	Monica A Fontaine	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>040204</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7-8, 11-12, 15-17, 19-20, 22-25, and 27-28 are rejected under 35

U.S.C. 102(b) as being anticipated by Kuriu et al. (U.S. Patent 5,562,996). Regarding Claim 1, Kuriu et al., hereafter “Kuriu,” show that it is known to carry out a method of making a multilayer structure (Abstract) comprising the steps of coextruding a multilayer structure comprising at least a heat sealant layer comprising a polyamide, a first polyamide layer, and a first tie layer (Column 5, lines 4-21; Column 6, lines 38-43); and biaxially orienting the multilayer structure (Column 6, lines 42-43).

Regarding Claim 2, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, including a method further comprising the step of annealing the multilayer structure (Column 6, lines 66-67).

Regarding Claim 3, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the first tie layer is disposed between the sealant layer and the first polyamide layer (Column 3, lines 17-46; Column 5, lines 4-22).

Regarding Claim 4, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the first polyamide layer is disposed between the sealant layer and the first tie layer (Column 3, lines 17-46; Column 5 lines 4-22).

Regarding Claim 5, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the heat sealant layer comprises a blend of linear low density polyethylene and low density polyethylene (Column 3, lines 17-30, 51-53).

Regarding Claim 7, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the first polyamide layer comprises a blend of nylon 6 and amorphous polyamide (Column 2, lines 37-41, 59-62).

Regarding Claim 8, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the first polyamide layer comprises a blend of nylon 6, 66 and amorphous polyamide (Column 2, lines 37-41, 59-62).

Regarding Claim 11, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the multilayer structure further comprises a second tie layer (Column 3, lines 17-46; Column 5, lines 4-22).

Regarding Claim 12, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the first polyamide layer forms an outer layer of the multilayer structure (Column 4, lines 62-65).

Regarding Claims 15 and 16, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the multilayer structure is 3.1 mils (Column 5, lines 56-61).

Regarding Claim 17, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the multilayer structure further comprises a second polyamide layer, and wherein the first and second polyamide layers are disposed on opposite sides of the first tie layer (Column 3, lines 17-46, 62-67; Column 4, lines 1-23).

Regarding Claim 19, Kuriu shows the process as claimed as discussed in the rejection of Claims 1 and 17 above, including a method wherein the second polyamide layer comprises a blend of nylon 6 and amorphous polyamide (Column 2, lines 37-41, 59-62).

Regarding Claim 20, Kuriu shows the process as claimed as discussed in the rejection of Claims 1 and 17 above, including a method wherein the second polyamide layer comprises a blend of nylon 6, 66 and amorphous polyamide (Column 2, lines 37-41, 59-62).

Regarding Claim 22, Kuriu shows the process as claimed as discussed in the rejection of Claims 1 and 17 above, including a method wherein the multilayer structure further comprises an outer layer comprising a polyamide, and wherein the first polyamide layer is disposed between the first tie layer and the outer layer, and the second polyamide layer is disposed between the first tie layer and the sealant layer (Column 3, lines 17-46; Column 4, lines 62-65; Column 5, lines 4-22).

Regarding Claim 23, Kuriu shows the process as claimed as discussed in the rejection of Claims 1, 17, and 22 above, including a method wherein the multilayer structure further comprises a second tie layer between the outer layer and the first polyamide layer (Column 3, lines 17-46; Column 5, lines 4-22).

Regarding Claim 24, Kuriu shows the process as claimed as discussed in the rejection of Claims 1, 17, and 22 above, including a method wherein the multilayer structure further

Art Unit: 1732

comprises a second tie layer between the sealant layer and the second polyamide layer (Column 3, lines 17-46; Column 5, lines 4-22).

Regarding Claim 25, Kuriu shows the process as claimed as discussed in the rejection of Claims 1, 17, and 22 above, including a method wherein the multilayer structure comprises a second tie layer between the outer layer and the first polyamide layer and a third tie layer between the sealant layer and the second polyamide layer (Column 3, lines 17-46; Column 5, lines 4-22).

Regarding Claim 27, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the multilayer structure is biaxially oriented by a double bubble method (Column 6, lines 46-52).

Regarding Claim 28, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the multilayer structure is oriented via tenter frame (Column 6, lines 48-50).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuriu, when taken with Ramesh (U.S. Patent 6,346,285).

Regarding Claim 10, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the first polyamide layer comprises a blend of aliphatic crystalline polyamides (“widely used in the field of films as packaging materials”) and amorphous polyamide (Column 2, lines 37-41, 59-62). Although he shows the use of nylon 6, 66, he does not specifically show the use of nylon 6, 69. However, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to select nylon 6, 69 as a component in a blend with nylon 6 and an amorphous polyamide, given that Ramesh discloses nylon 6, 69 as an equal crystalline polyamide to nylon 6, 66 (Column 13, lines 49-52), in order to capitalize on specific properties that nylon 6, 69 lends to its products.

Regarding Claim 21, Kuriu shows the process as claimed as discussed in the rejection of Claims 1 and 17 above, including a method wherein the first polyamide layer comprises a blend of aliphatic crystalline polyamides (“widely used in the field of films as packaging materials”) and amorphous polyamide (Column 2, lines 37-41, 59-62). Although he shows the use of nylon 6, 66, he does not specifically show the use of nylon 6, 69. However, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to select nylon 6, 69 as a component in a blend with nylon 6 and an amorphous polyamide, given that Ramesh discloses nylon 6, 69 as an equal crystalline polyamide to nylon 6, 66 (Column 13, lines 49-52), in order to capitalize on specific properties that nylon 6, 69 lends to its products.

Claims 6, 9, 13-14, 18, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuriu, in view of Ramesh.

Regarding Claim 6, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show using semi-crystalline polyamides. Ramesh shows that it is known to carry out a method of making a multilayer structure, wherein a first polyamide layer comprises a blend of semi-crystalline polyamide and amorphous polyamide (Column 10, lines 24-39). Ramesh and Kuriu are combinable because they are concerned with a similar technical field, namely, that of methods of making multilayer films. It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to use Ramesh's semi-crystalline polyamide in Kuriu's molding method in order to allow the resulting film to be more pliable.

Regarding Claim 9, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show the use of semi-crystalline polyamides. Ramesh shows that it is known to carry out a method of making a multilayer structure, wherein a polyamide layer comprises a blend of a first semi-crystalline polyamide, a second semi-crystalline polyamide, and amorphous polyamide (Column 10, lines 24-39; Column 14, lines 17-53). It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to use Ramesh's combination of polyamides in Kuriu's molding process in order to capitalize on the benefits of each ingredient.

Regarding Claim 13, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show a moisturizing step. Ramesh shows that it is known to carry out a method of making a multilayer structure, further comprising the step of moisturizing the multilayer structure by applying water to the multilayer structure (Column 17, lines 26-29). It would have been *prima facie* obvious to one of ordinary skill in the art at the time the

Art Unit: 1732

invention was made to include Ramesh's moisturizing step in Kuriu's molding process in order to prevent the film from drying out.

Regarding Claim 14, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show an irradiating step. Ramesh it is known to carry out a method of making a multilayer structure, further comprising the step of irradiating the multilayer structure to promote crosslinking of the layers of the multilayer structure (Column 17, lines 9-15). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Ramesh's irradiating step during Kuriu's molding process in order to insure proper curing of the film.

Regarding Claim 18, Kuriu shows the process as claimed as discussed in the rejection of Claims 1 and 17 above, but he does not show using semi-crystalline polyamides. Ramesh shows that it is known to carry out a method of making a multilayer structure, wherein a first polyamide layer comprises a blend of semi-crystalline polyamide and amorphous polyamide (Column 10, lines 24-39). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Ramesh's semi-crystalline polyamide in Kuriu's molding method in order to allow the resulting film to be more pliable.

Regarding Claim 26, Kuriu shows the process as claimed as discussed in the rejection of Claim 1 above, including disclosing that the film formation is not limited (Column 6, line 43). However, he does not explicitly show coextruding a tube. Ramesh shows that it is known to carry out a method of making a multilayer structure, wherein the multilayer structure is coextruded as a tube (Column 17, lines 4-10). It would have been prima facie obvious to one of

Art Unit: 1732

ordinary skill in the art at the time the invention was made to coextrude Ramesh's tube by Kuriu's molding process in order to avoid post-forming a flat film into a tube.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-10, and 12-28 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 8-13, 15-31, respectively, of copending Application No. 10/735567. Although the conflicting claims are not identical, they are not patentably distinct from each other because the conflicting claims of 10/735567, hereafter "'567," do not specifically recite a "tie layer". The '567 claims do recite a "barrier layer". It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to form the instantly-claimed "tie layer" in the same manner as the '567-claimed "barrier layer" in order to produce a multilayer structure having layers specific to the end-use industry (i.e. an industry which requires tie layers instead of barrier layers).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Art Unit: 1732

Claims 1, 3-10, 12-16, 18-22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4-5, 10-13, 15-16, 19, 22-23, 25-26, 31-33, 36, and 38, respectively, of copending Application No. 10/734401, hereafter "'401," in view of Kuriu. Although the claims of '401 are drawn to a multilayer structure that is coextruded, the '401 claims do not teach biaxially orienting the multilayer structure. Kuriu shows that it is known to coextrude a multilayer structure and to biaxially orient the structure (Column 6, lines 42-43). Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to carry out the instantly-claimed process using the teachings of the '401 claims and Kuriu in order to form a multilayer structure.

This is a provisional obviousness-type double patenting rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with regard to forming multilayer structures, in general:

U.S. Patent 3,456,044 to Pahlke

U.S. Patent 6,117,465 to Falla

U.S. Patent 6,117,541 to Frisk

U.S. Patent 6,682,792 to Schmal et al.

Art Unit: 1732

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A Fontaine whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Maf
July 28, 2004



MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER